

SHIP JAN 12TH, 2017

Work Order ID 154262

154262

Page 1

Wednesday, December 07, 2016 10:49:24 A

Item ID: D3480-043 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Eyeball Adapter
 Start Date: 12/9/2016 Start Qty: 2.00 *2* Cust Item ID:
 Required Date: 1/6/2017 Req'd Qty: 2.00 *2* Customer:
 Reference:

Approvals: Process Plan: DAS 21 Date: DEC 07 2016 Tooling: _____ Date: _____ Run Start *NR1*
 QC: 9-89 Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3480	Rev C								

100 0.00

100 Small Fab
 Small Fab Memo 0.00
 Small Fab Spot weld as per dwg D3480

110 110 QC11- Inspect spot weld per OSI004 0.00
QC N/A Memo 0.00
 Quality Control

115 QC QC11- Inspect spot weld per OSI004 0.00
QC N/A Memo 0.00
 Quality Control

120 QC5- Inspect part completeness to step on W/O 0.00
 120 QC Memo 0.00
 Quality Control

120 QC Memo 0.00
 Quality Control

(2)

DAS 9 9-89

17-0-31

FEB 01 2017 DAS 6 9-89

LH 11/12/20

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____							
Misidentified ☐	☐ Past Due								

Work Order ID 154262

Wednesday, December 07, 2016 10:49:24 A

154262

Page 2

Item ID: D3480-043 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Eyeball Adapter
Start Date: 12/9/2016 Start Qty: 2.00 ***2*** Cust Item ID:
Required Date: 1/6/2017 Req'd Qty: 2.00 ***2*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: <u> A </u> Memo	0.00 0.00				<u> 2 </u>	<u> 6 </u> DAS 8-89		JAN 31 2017
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							17602/01 <u> J </u> DAS 21 8-89 JAN 31 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
☐ OTHER : _____					

Picklist Print

Wednesday, December 07, 2016 10:49:27 AM

Page 1

Work Order ID: 154262

154262

Parent Item: D3480-043

D3480-043

Parent Item Name: Eyeball Adapter

Start Date: 12/9/2016

Required Date: 1/6/2017

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP rev. A 06.02.07 new issue EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3480-1		Manufactured	No			100	Each	5.0000	1	2			
---------	--	--------------	----	--	--	-----	------	--------	---	---	--	--	--

D3480-1 ✓

Flange

Location

Loc Qty

Loc Code

Mezz

5

46990

5

NAS1031C3W

Purchased No

100

Each

40.0000

4

8

NAS1031C3W

Nutplate

Location

Loc Qty

Loc Code

ST266

40

106574

15

119546

25

8

vs 16/12/19

vs 16/12/19

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

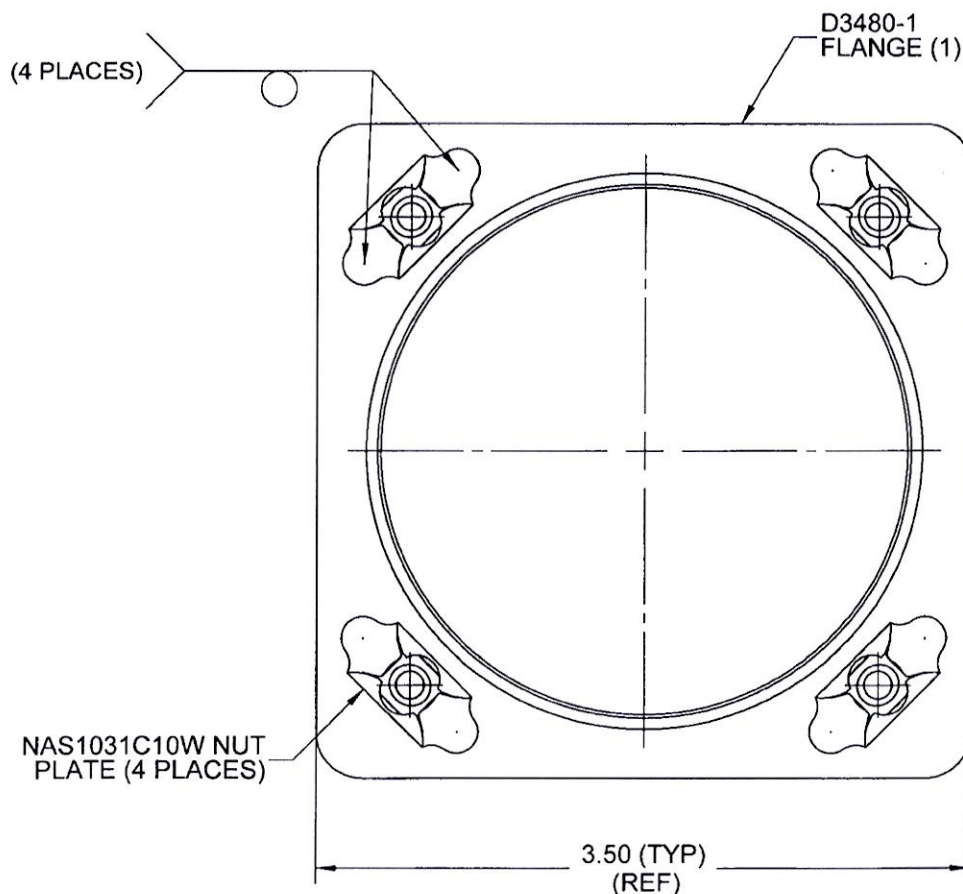
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : ☐					



DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3480	REV. C SHEET 2 OF 6
DATE 08.12.19		TITLE EYEBALL ADAPTER	SCALE 1:1

RELEASE
9/01/30 MPV



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 154262
16-8-07

D3480-043 EYEBALL ADAPTER

NOTES:

- 1) SPOT WELD PER DART QSI 004
- 2) FINISH: NONE
- 3) IDENTIFY WITH DART P/N D3480-043 USING FINE POINT PERMANENT INK MARKER
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010

QTY -043	P/N	DESCRIPTION
X	D3480-043	EYEBALL ADAPTER
1	D3480-1	FLANGE
4	NAS1031C3W	NUTPLATE

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Linda Lacelle

From: Eric Downing
Sent: Wednesday, January 04, 2017 8:15 AM
To: Linda Lacelle
Cc: Mario Poulin; Victor Sanchez
Subject: RE: Spot Weld

Also M106574 x7

From: Eric Downing
Sent: Wednesday, January 04, 2017 8:16 AM
To: Linda Lacelle <llacelle@dartaero.com>
Cc: Mario Poulin <mpoulin@dartaero.com>; Victor Sanchez <vsanchez@dartaero.com>
Subject: RE: Spot Weld

NAS1031C3W B119546

From: Linda Lacelle
Sent: Wednesday, January 04, 2017 7:59 AM
To: Eric Downing <edowning@dartaero.com>
Cc: Mario Poulin <mpoulin@dartaero.com>; Victor Sanchez <vsanchez@dartaero.com>
Subject: RE: Spot Weld

Eric,
Can you give me the B/N's of the nutplates pls

From: Victor Sanchez
Sent: Wednesday, January 04, 2017 7:42 AM
To: Linda Lacelle <llacelle@dartaero.com>
Cc: Mario Poulin <mpoulin@dartaero.com>; Eric Downing <edowning@dartaero.com>
Subject: RE: Spot Weld

Hi,

I gave them to Eric yesterday

*changed to w/o 154262
✓
1/4-01-01*

Thank you

From: Linda Lacelle
Sent: Wednesday, January 04, 2017 7:28 AM
To: Victor Sanchez <vsanchez@dartaero.com>
Cc: Mario Poulin <mpoulin@dartaero.com>; Eric Downing <edowning@dartaero.com>
Subject: RE: Spot Weld

What about the B/N for the nutplates? Did you take 16 ??

Thx
L

From: Victor Sanchez
Sent: Tuesday, January 03, 2017 11:12 AM
To: Eric Downing <edowning@dartaero.com>; Linda Lacelle <llacelle@dartaero.com>
Cc: Mario Poulin <mpoulin@dartaero.com>
Subject: RE: Spot Weld

Eric,

M130650

Thanks

From: Eric Downing
Sent: Tuesday, January 03, 2017 11:08 AM
To: Victor Sanchez <vsanchez@dartaero.com>; Linda Lacelle <llacelle@dartaero.com>
Cc: Mario Poulin <mpoulin@dartaero.com>
Subject: RE: Spot Weld

Victor,

Do you have the material batch number for the sample strips?

Eric

From: Victor Sanchez
Sent: Tuesday, January 03, 2017 11:06 AM
To: Linda Lacelle <llacelle@dartaero.com>
Cc: Mario Poulin <mpoulin@dartaero.com>; Eric Downing <edowning@dartaero.com>
Subject: RE: Spot Weld

Done

From: Linda Lacelle
Sent: Tuesday, January 03, 2017 9:56 AM
To: Victor Sanchez <vsanchez@dartaero.com>
Cc: Mario Poulin <mpoulin@dartaero.com>; Eric Downing <edowning@dartaero.com>
Subject: RE: Spot Weld
Importance: High

Victor,

We need 16pcs of 304SS sheet – 26ga – 12” long x 1.5” wide, as well as 16 x NAS1031C3W nutplates for the spot weld order. Eric will be bringing these to the supplier, so please have them ready asap.

Also, bring me the B/N's, so we can allocate them to the PO.

L

From: Victor Sanchez
Sent: Tuesday, January 03, 2017 9:05 AM
To: Linda Lacelle <llacelle@dartaero.com>
Cc: Mario Poulin <mpoulin@dartaero.com>
Subject: Spot Weld

Hi Linda,

Once you have some chance, could you please let me know the update for the following items:

- Spot welding parts
- PC7041-1 Plenum Cap Assembly

Thank you



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO 4695**

Purchase Order Date 12/21/2016

PO Print Date 1/27/2017

Page Number 1 of 3

Order From : VC-ROY001
RBC ROYAL BANK - VISA
PAYMENT CENTRE, PO BOX 4016, STAT. A
TORONTO, ON M5W 1X6
CA

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

REVISED

Contact Name
Vendor Phone

Buyer Linda Lacelle

Customer POID

Customer Tax # 10127-2607

Terms COD

Currency CAD

FOB Destination-Collect

Ship To Contact

Ship To Phone

Ship Via: FedEx Economy collect

Ship Acct:

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	154263 spot weld per drwg and QSI004	D3480-041	1/27/2017 Yes 1/27/2017		2.00	\$179.95	\$359.91
Line Total:							\$359.90
2	154262 spot weld per drwg and QSI004	D3480-043	1/27/2017 Yes 1/27/2017		2.00	\$179.95	\$359.91
Line Total:							\$359.90
3	154264 spot weld per drwg and QSI004	D3479-041	1/27/2017 Yes 1/27/2017		2.00	\$179.95	\$359.91

JAN 27 2017

DAS
6
9-80

PO Instructions: LEV-FAB
VISA # 4516 0560 0077 4712
CID# 267, EXP 10/20

Note:

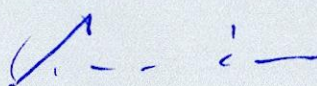
1/27/2017



RÉRONAUTIQUE
LEV-FAB

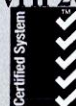
640, boul. Mgr Dubois
Saint-Jérôme (Québec) J7Y 3L8
Téléphone : 450 438-7164

CERTIFICAT DE CONFORMITÉ CERTIFICATE OF COMPLIANCE

CLIENT / CUSTOMER www.lev-fab.com DART AEROSPACE		# ORDRE D'ACHAT / PURCHASE ORDER PO34695		DATE 2017-01-24
# DE LA PIÈCE / PART # D3480-043		NOM DE LA PIÈCE / PART NAME EYEBALL ADAPTER		# DE SÉRIE / SERIAL NUMBER N/A
# DESSIN / DRAWING # D3480		REV. DESSIN / DRAWING REV. C	CHANGEMENT ADDITIONNEL / ADDITIONAL CHANGE N/A	
QUANTITÉ / QUANTITY 2		# BON DE TRAVAIL / WORK ORDER# 624-1		# DE CERTIFICAT / CERTIFICATE # 624-1
ADRESSE DE LIVRAISON / SHIPPING ADDRESS DART AEROSPACE LTD. 1270 ABERDEEN STREET HAWKESBURY, ON K6A 1K7 CANADA				
INDEX DES PIÈCES, OPÉRATIONS, INSPECTION POUR RÉALISER SOUS-ASSEMBLAGE OU L'ASSEMBLAGE IDENTIFIÉ PLUS HAUT. INDEX OF PARTS, OPERATIONS, INSPECTION TO CARRY OUT SUBASSEMBLY OR ASSEMBLY IDENTIFIED ABOVE.				
MATIÈRE PREMIÈRE / TRAITEMENT / OPERATION RAW MATERIAL / PROCESS / OPERATIONS		DISTRIBUTEUR / DISTRIBUTOR	RÉSULTAT / # CERTIFICAT RESULT / CERTIFICATE #	
Matière première se référer à l'ordre d'achat Raw material refer to PL D3480 FROM DART AEROSPACE (PART LIST): - D3480-1 FLANGE - NAS1031C3W NUTPLATE		DART AEROSPACE	COMPLETED	
Méthodes / Processes : - Processes: Manufacture as per Drawing Requirement or per attached Notification Requirement, if applicable. - Spot weld per QSI004 - Protect for shipment.		LEV-FAB LEV-FAB LEV-FAB	COMPLETED COMPLETED COMPLETED	
Contrôle Non-Destructif / NDT inspection		N/A	N/A	
Inspection premier article / First article inspection		LEV-FAB	COMPLETED	
Je certifie par la présente que l'article énuméré ci-dessus est conforme, après inspection et essai, aux dessins et aux spécifications indiqués ou cités sur votre bon de commande. I hereby certify, that above article has been inspected and tested and conforms to the drawings and/or specification quoted on, or referenced by your Purchase Order.				
Signature 		Date 2017-01-24		



F-CC (Avril 2016)



Accredited
Nadcap

Canada

Controlled Goods program
Programme des marchandises contrôlées

Source : SAE AS 9102 Revision A
F-822 A (September 23, 2014)
REV.: 2

**VÉRIFICATION - RAW MATERIALS, SPECIFICATIONS, SPECIAL PROCESSES
AND FUNCTIONAL TESTING.**

[illegible]

INSPECTION AND CONTROL (FAI 3) FEATURES, VERIFICATION AND COMFORMANCE EVALUATION

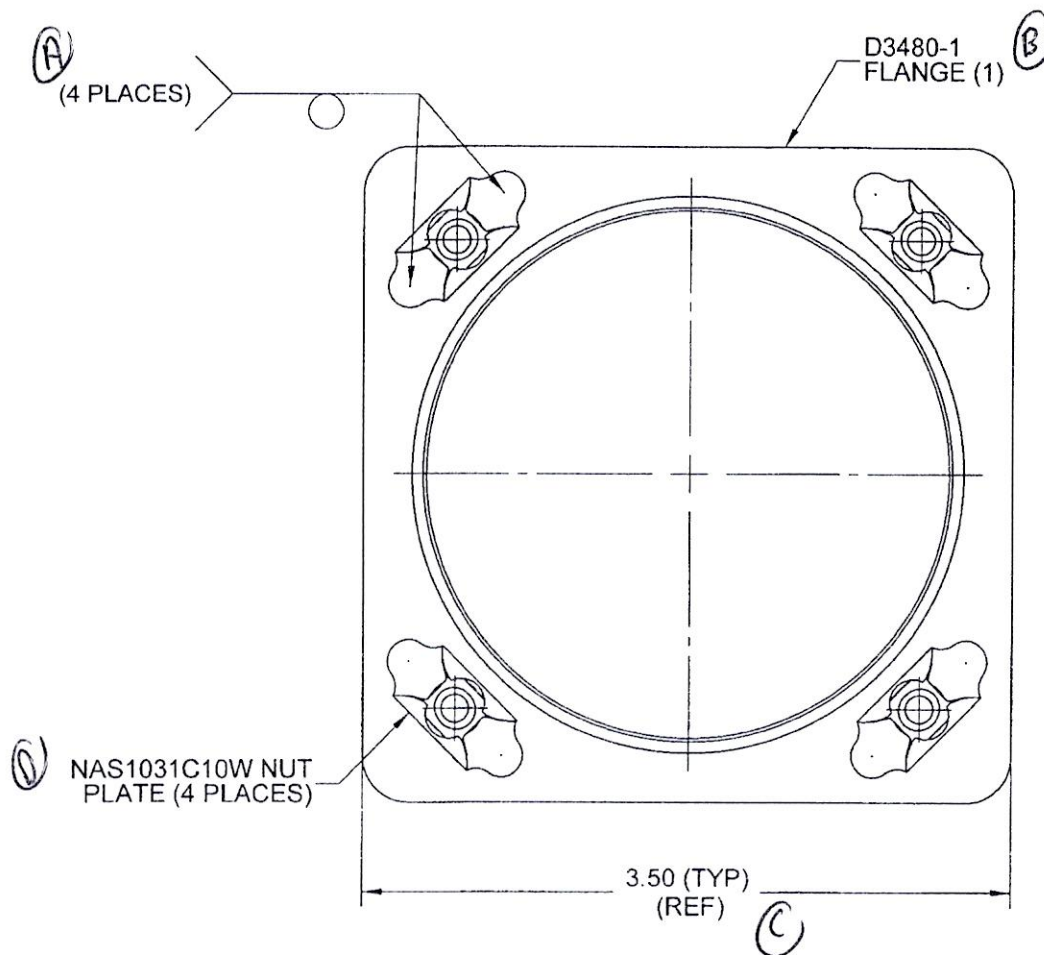
DAS
9-89
11.2.31

1. PART NUMBER		2. PART NAME		3. SERIAL NUMBER		4. FAI REPORT NUMBER	
D3480-043		EYEBALL ADAPTER		N/A		624-1	
CHARACTERISTIC ACCOUNTABILITY				INSPECTION / TEST RESULTS			
6. CHARC #	6. REFERENCE LOCATION	7. CHARACTERISTIC DESIGNATOR	8. REQUIREMENTS	9. RESULTS	10. DESIGNED TOOLING	11. NON-COMFORMANCE NUMBER	14. COMMENTS
A	N/A	N/A	(4 PLACES) 	PASS	VISUAL	N/A	N/A
B	N/A	N/A	D3480-1 FLANGE (1)	PASS	VISUAL	N/A	N/A
C	N/A	N/A	3,50 (TYP) ±0,030	3,496	VERNIER 207	N/A	N/A
D	N/A	N/A	NAS1031C10W NUT PLATE (4 PLACES)	PASS	VISUAL	N/A	N/A
E	N/A	N/A	SPOT WELD PER DART QSI 004	PASS	VISUAL	N/A	N/A
F	N/A	N/A	FINISH: NONE	N/A	N/A	N/A	N/A
G	N/A	N/A	IDENTIFY WITH DART P/N D3480-043 USING FINE POINT PERMANENT	PASS		N/A	N/A
H	N/A	N/A	TOLERANCE ARE PER DART QSI 018 UNLESS OTHERWISE NOTED	PASS		N/A	N/A
I	N/A	N/A	ALL DIMENSIONS ARE IN INCHES	PASS		N/A	N/A
J	N/A	N/A	BREAK ALL SHARP EDGES 0,005 TO 0,010	PASS	FEEL	N/A	N/A
THE SIGNATURE INDICATES THAT ALL CHARACTERISTICS ARE ACCOUNTED FOR; MEET DRAWING REQUIREMENT OR ARE PROPERLY DOCUMENTED FOR DISPOSITION.							
12. PREPARED BY:					13. DATE		



DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3480	REV. C SHEET 2 OF 6
DATE 08.12.19		TITLE EYEBALL ADAPTER	SCALE 1:1

RELEASE
9/10/30 MP



D3480-043 EYEBALL ADAPTER

NOTES:

- 1) SPOT WELD PER DART QSI 0041 (E)
- 2) FINISH: NONE (F)
- 3) IDENTIFY WITH DART P/N D3480-043 USING FINE POINT PERMANENT INK MARKER (G)
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED (H)
- 5) ALL DIMENSIONS ARE IN INCHES (I)
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010 (J)

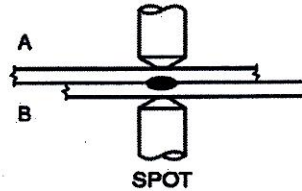
QTY -043	P/N	DESCRIPTION
X	D3480-043	EYEBALL ADAPTER
1	D3480-1	FLANGE
4	NAS1031C3W	NUTPLATE

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RESISTANCE WELDING DATA SHEET AND PQR N° RW-2

Equipment Identification

Manufacturer: Techno ControlModel: Alpha SeriesS/N 3187 Rating 50%Operator: Frederick Gaudreau

		SIDE A	SIDE B	SPOT		
MATERIAL	Thickness	0.018"	0.018"	S.C.R.	On	
	Approx. Analysis (type)			Squeeze Time (s)	60	
				Cool Time (s)	0	
	Surface Cond.	Clean *	Clean *	Heat (%)	45	
	Ultimate Strength	N/A	N/A	Hold Time (s)	6	
	Yield Strength	N/A	N/A	Off Time (s)	6	
	Elongation %	---	---	Squeeze Force (Psi)	45	
	Red. In Area %	---	---	Weld Time (s)	10	
	Hardness	---	---			
	Material	AISI 304/316	AISI 304/316			
ELECTRODE	Shape			Tension Test		
	W = 5/8"			TORSIONAL	Yield Point	
	E = 13/64"				Ultimate	
	r = N/A				Mod. Of Rupt.	
alpha = N/A	Degree Twist at Ult.					
SPOT	Diameter: 3/16" min.	Shear Load Result 1: 560 Lb 2: 558 Lb 3: 535 Lb 4: 5:				
	Overlap or Flange: 0.7" min.					
	Spacing: As per drawing					
SEAM	Roll Speed mm per min. (in. per min.)					
	Spots per mm (in)					
	Width of Weld					
MASH	Overlap or Filler	Indentation: Less than 0.005"				
	Length of Weld			Nugget Size: Over 0.09"		
				Other Tests: See lab report M17011208		
Remarks: Dart Aerospace Ref.: 229 * Clean with alcohol				Photos or sketch		

 Company Lev-Fab Inc.
 Authorized By Denis Martel Ing.

Signature


 Denis Martel
 CWI 14110007
 QC1 EXP. 11/1/2017



GENITEST INC.



LABORATOIRE D'ESSAIS (Métaux, Matériaux) CONSULTATION - RECHERCHE
TESTING LABORATORY (Metals, Materials) CONSULTING - RESEARCH

AEROSPACE LEV-FAB
640 Boul. Mgr Dubois
St-Jérôme, QC
J7Y 3L8

Report Date
Page

January 19, 2017
1 of 2

TEST REPORT EVALUATION OF RESISTANCE SPOT WELDING PROCEDURE CERTIFICATION

M17011208

		Macroscopic and metallographic examination			
Customer #: A001206		Thickness # 1: 0.018"			
Material: Group 2		Thickness # 2: 0.018"			
Weld Class C		W=0.73"; L=3.0"			
Shape: Isolated Spot Weld Sheet		Sample	# 3	# 4	Acc. Rej.
Test specimens		Contacting Overlap (min. 0.68")	0.73"	0.73"	☒ ☐
Thick. # 1 (sheet):---		Edge distance (0.365" ± 0.060") - 1:	0.375"	0.365"	☒ ☐
Thick. # 2 (sheet):---		-2:	0.355"	0.365"	☒ ☐
Welder:---		Surface Indentations T1 (max. 0.005"):	0.002"	0.002"	☒ ☐
W/O:---		Surface Indentations T2 (max. 0.005"):	0.003"	0.002"	☒ ☐
Testing time:---		Penetration T1 - minimum (min 20% T):	51% T (*)	48% T (*)	☒ ☐
Other:---		-maximum (max 90% T):	62% T	59% T	☒ ☐
Testing Specifications:		Penetration T2 - minimum (min 20% T):	53% T (*)	45% T (*)	☒ ☐
AWS D17-2/D17.2M:2013		-maximum (max 90% T):	65% T	53% T	☒ ☐
=====		Sheet separation (max. 0.006")-Left side:	<0.001"	0.003"	☒ ☐
Visual Inspection		-Right side:	0.003"	<0.001"	☒ ☐
ACCEPTED		Discontinuities from the edge of the nugget:	Nil	Nil	☒ ☐
		(Max. : 15% of the nugget radius)	0.009"	0.008"	☒ ☐
		Discontinuities extending into outer sheet:	Nil	Nil	☒ ☐
		(Max.: 50% of the sheet thickness)	0.009"	0.009"	☒ ☐
		The largest discontinuity:	Nil	Nil	☒ ☐
		(Max.: 25% the nugget diameter)	0.029"	0.027"	☒ ☐
		Effective weld nugget size (min. 0.090"):	0.116"	0.107"	☒ ☐
		Penetration and Annulus Zone (figure 7):	Clear	Clear	☒ ☐

ENVIRONMENTAL CONDITIONS DURING TEST

Temperature: 24°C

Pressure: n/a

Relative Humidity: 23%

Comments: **Conforming with AWS D17.2/D17.2M:2013.**

The thickness of the sheets was measured by Genitest.

(*) More than 80% of the measured nugget diameter exceeds the minimum penetration requirement.

See the next page for supplemental information

TEST DONE IN ACCORDANCE WITH MCLM FC-23 E and BAERD-GEN-018E

ALL INSTRUMENTS ARE CALIBRATED USING STANDARDS AND MEASURING DEVICES TRACEABLE TO NIST (NBS). TECHNICAL PROCEDURES AND SPECIFICATIONS RELATIVE TO Nadcap QUALITY STANDARDS HAVE BEEN FOLLOWED FOR THIS REPORT.

Liability: Genitest Testing's liability to the client or any third party is limited to the amount charged for services provided.

The test report shall not be reproduced except in full, without the written approval of Genitest Inc. and the recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

Subcontractor: NIL

Document #GT-WF311-02

Jean Lavoie, PE Metallurgist

Supplemental Information

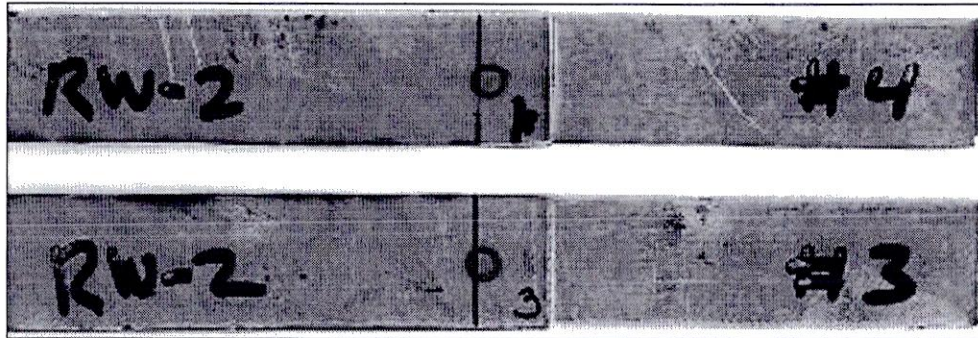


Figure 1 – Specimens as received for metallographic evaluation

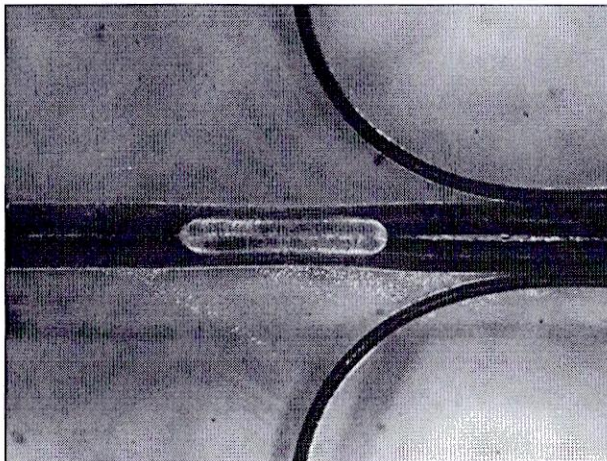


Figure 2 – Transverse section through the mid of the spot weld no 3 – Etchant: Vilella's - Magnification 10x 1 mm

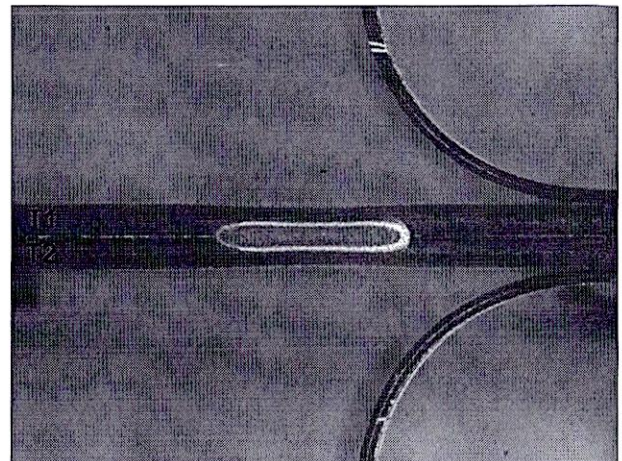


Figure 3 – Transverse section through the mid of the spot weld no 4 – Etchant: Vilella's - Magnification 10x 1 mm



GENITEST INC.



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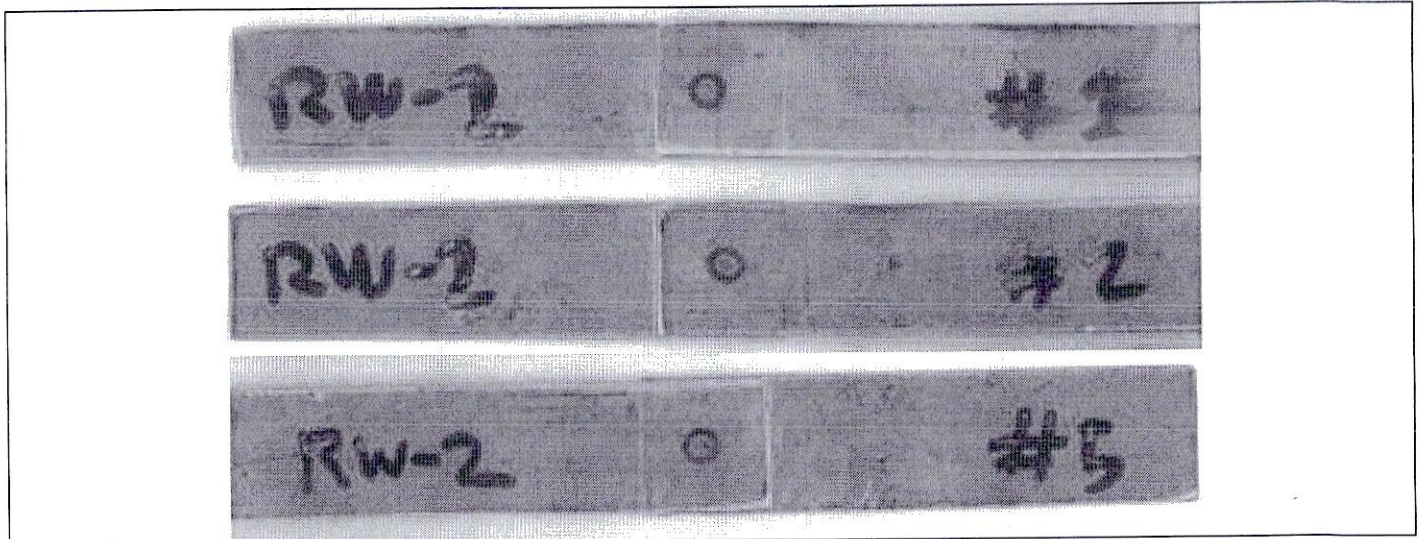
AEROSPACE LEV-FAB
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St-Jérôme, QC
J7Y 3L8

Report Date
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TEST REPORT
SHEAR TEST

L17011208



Customer #: A001206	Sample #:	LOAD
Specification: AWS D17-2		(lb _f)
Material: --	1	560
Shape: Shear test sample	2	558
Dimensions: 0.018" thick.	5	535
Testing Spec.: ASTM E8-15	Average	551

ENVIRONMENTAL CONDITIONS DURING TEST
Comments:

Temperature: 21°C

Pressure: n/a

Relative Humidity: 24%

TEST DONE IN ACCORDANCE WITH MCLM F-23C and BAERD-GEN-018E

ALL INSTRUMENTS ARE CALIBRATED USING STANDARDS AND MEASURING DEVICES TRACEABLE TO NIST (NBS).

TECHNICAL PROCEDURES AND SPECIFICATIONS RELATIVE TO Nadcap AND ISO/IEC 17025 QUALITY STANDARDS HAVE BEEN FOLLOWED FOR THIS REPORT.

Limited Liability: Genitest Testing's liability to the client or any third party is limited to the amount charged for services provided.

The test report shall not be reproduced except in full, without the written approval of Genitest Inc. and the recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

Subcontractor: NIL



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO34695**

Purchase Order Date 12/20/2016

PO Print Date 12/20/2016

Page Number 1 of 2

Order From :
AEROSPACE LEV-FAB
640 BOUL. MGR. DUBOIS
ST JEROME, QUEBEC J7Y 3L8

VC-ALF01

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 514-876-8787

Ship To Contact
Ship To Phone
Ship Via: FedEx Economy collect
Ship Acct:

Buyer
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB Destination-Collect

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	154263 spot weld per drwg and QSI005	D3480-041	1/10/2017 No 1/10/2017		2.00	\$0.00	\$0.00
Line Total:							\$0.00
2	154262 spot weld per drwg and QSI005	D3480-043	1/10/2017 No 1/10/2017		2.00	\$0.00	\$0.00
Line Total:							\$0.00
3	154264 spot weld per drwg and QSI005	D3479-041	1/10/2017 No 1/10/2017		2.00	\$0.00	\$0.00

PO Instructions: Fedex Acct # 151793240

Note:

12/20/2016



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO34695**

Purchase Order Date 12/20/2016

PO Print Date 12/20/2016

Page Number 2 of 2

Order From :

VC-ALF01

AEROSPACE LEV-FAB
640 BOUL. MGR. DUBOIS
ST JEROME, QUEBEC J7Y 3L8

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

514-876-8787

Ship To Contact

Ship To Phone

Ship Via:

FedEx Economy collect

Ship Acct:

Buyer

Linda Lacelle

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Line Total: \$0.00

4	71401-45	PROCUREMENT QUALITY CLAUSE	1/10/2017	1.00	\$0.00	\$0.00
---	----------	-------------------------------	-----------	------	--------	--------

No

Procurement Quality Clauses

1/10/2017

A004 faa-pma/tso

A005 right of entry

A008 first article inspection (FAI documentation maintained by
seller Documentation sent to Dart Aerospace)

A016 personnel qualification

A026 certification of materila conformance

A040 notification of escape clauses

A042 dart notification by supplier

A043 retention of quality document

Line Total: \$0.00

5	71401-45	FAI - 2 samples B154684	1/10/2017	2.00	\$0.00	\$0.00
---	----------	-------------------------	-----------	------	--------	--------

No

1/10/2017

Line Total: \$0.00

PO Total: \$0.00

PO Instructions: Fedex Acct # 151793240

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 1

Change Date: 12/20/2016

DART AEROSPACE LTD

QUALITY SYSTEM INSTRUCTION: QSI 018

TITLE: Standard Tolerances

ISSUE: 03

DATE: November 30, 2004

PREPARED BY: David Shepherd

REVIEWED

**Linda Lacelle
PRODUCTION MANAGER**

**David Shepherd
CHIEF ENGINEER**

**Bill Beckett
DESIGN MANAGER**

APPROVED BY:

**Susanne Sheldon
DIRECTOR, QUALITY ASSURANCE**

STANDARD TOLERANCES

Procedure Issue Date: 04.11.30 Issue No: 03

1.0 PURPOSE

To establish the tolerances for DART production

2.0 SCOPE

This work instruction applies to all parts manufactured, or designed by DART, unless otherwise stated on a drawing

3.0 RESPONSIBILITY**3.1 PRODUCTION MANAGER**

Has the responsibility of ensuring the tolerances are being followed

3.2 DIRECTOR, QUALITY ASSURANCE

Is responsible for auditing that the tolerances are being followed.

4.0 PROCEDURE**4.1** Follow the following requirements (unless otherwise stated):

1. Dimensions are in inches.
2. Surface roughness 125✓. (Visual inspection accepted).
3. Remove sharp edges .015 max.
4. Threads per MIL-S-7742
5. Holes per the following table: (source: AND10387)

Hole Diameter	Tolerance
0.0135 to 0.125	+ 0.004 / – 0.001
0.126 to 0.250	+ 0.005 / – 0.001
0.251 to 0.500	+ 0.006 / – 0.001
0.501 to 0.750	+ 0.008 / – 0.001
0.751 to 1.000	+ 0.010 / – 0.001
1.001 to 2.000	+ 0.012 / – 0.001

6. Dimensions:

X.X	+/- 0.100
X.XX	+/- 0.030
X.XXX	+/- 0.010
7. Angles

	+/- 1/2°
--	----------
8. Parallelism

	+/- 0.0025
--	------------
9. Eccentricity

	0.005 Max
--	-----------
10. Symmetry about all M/C center lines

	0.005
--	-------

STANDARD TOLERANCES

Procedure Issue Date: 04.11.30 Issue No: 03

REVISION RECORD: B

PAGE	PAGE REV.	SUBJECT	DATE	INITIAL	DQA
1	A	No change			
2	B	Revised issue page	06.08.03		
3	B	Revised Section 4.1	06.08.03		



AEROSPACE
LEV-FAB

640 Monseigneur-Dubois Blvd.
St-Jerome, Qc, Canada, J7Y 3L9
Phone: 450-438-7164
Fax: 450-438-9846
www.lev-fab.com



Nadcap



Canada
Controlled Goods program
Programme des marchandises contrôlées

Ship to

DART AEROSPACE
1270 Aberdeen Street
Hawkesbury, Ontario, Canada
K6A 1K7

Packing slip

299

Shipped on Jan 25, 2017

Page 1/1

Customer

1521

DART AEROSPACE
1270 Aberdeen Street
Hawkesbury, Ontario, Canada
K6A 1K7

Contact: Linda Lacelle
Tel: 1 613 632-9577 **Fax:**
Courriel:

Contact: Linda Lacelle
Tel: 1 613 632-9577 x. 235 **Fax:**
Courriel: llacelle@dartaero.com

Order date	Payment terms	Customer PO	Order no.	FOB	Freight charges
Dec 20, 2016	C.O.D. 1 ERE COMMANDE	PO34695	229	Origine	Collect

Line	Item	Rev.	Ref. no.	On order	Ship. qty	Back order	PKG
1	D3480-041 EYEBALL ADAPTER	C		2 UN	2	0	
2	D3480-043 EYEBALL ADAPTER	C		2 UN	2	0	
3	D3479-041 EYEBALL ADAPTER	B		2 UN	2	0	
4	PROCUREMENT-QUALITY PROCUREMENT QUALITY CLAUSE			1 UN	1	0	
5	FAI-2-SAMPLES B154684 FAI-2-SAMPLES B154684 PROCESS			1 UN	1	0	

DAS
6
9-89
JAN 27 2017
SL

Packed by	Date	Name	Carrier name	Pieces	Total
		APOLLO BOUC	VOTRE TRANSPOR		



RÉRONAUTIQUE
LEV-FAB

640 Boul. Mgr Dubois
Saint-Jérôme, QC, J7Y 3L8
Téléphone: 450-438-7164
Ligne Montréal: 514-876-8787
Télécopieur: 450-438-9846
www.lev-fab.com



Nadcap



Canada
Dutiable Goods program
Programme des marchandises certifiées

Fournisseur

A-773

DART AEROSPACE

1270 Aberdeen Street

Hawkesbury, Ontario, Canada

K6A 1K7

Bon de livraison ST001607

Imprimé le 2017-01-24

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Dest.

AER

LEV-FAB Aéronautique

640, Mgr-Dubois

St-Jérôme (Québec) J7Y 3L8

Contact: Linda Lacelle

Tél.: 1 613 632-9577

Fax:

Packed by / Emballé par	Transport	Date d'expéd.
shipping		2017-01-24

Article	Rév.	Descr.	Référence	Qté totale	Poids
D3479-041	B	EYEBALL ADAPTER BEAD PER DART BETWEEN BOTH OPERATION OF SPOT WELD S-trait. ZZ-896 D3479-041-BEAD (PO: A001247)	625-1-41	2 UN	

Signature

Date